

**DATA STRUCTURE, METHODS, AND COMPUTER PROGRAM PRODUCTS  
FOR STORING TEXT DATA STRINGS USED TO DISPLAY TEXT  
INFORMATION ON A DISPLAY TERMINAL**

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**ABSTRACT OF THE DISCLOSURE**

10 The present invention provides data structure, methods, and computer programs  
for storing text data used by a computer program to display information on a display  
terminal.. Importantly, the present invention provides a data structure in which the data  
strings traditionally stored in the computer program are removed from the computer  
15 program and stored in the data structure. The data strings are associated with individual  
16 bit identification numbers, called tokens, which are used to indicate the location of the  
data strings in the data structure. In light of this, the data strings are removed from the  
source code of the computer program and replaced with tokens that address the data  
strings in the data structure. As such, to display a data string, the computer program  
20 outputs a token associated with the data string and the command to display it to the  
display management module, and the data string is located in the data structure and  
displayed on the display terminal. The data structure may include not only ASCII  
characters, but also extended ASCII characters different from those used in the standard  
ASCII table and a double byte characters set (DBCS). As such, the data structure  
25 supports not only languages that use ASCII and extended ASCII characters, but also  
graphical languages that use DBCS characters. The data structure also includes font  
areas for storing font data associated with extended ASCII characters not displayable  
with the standard ASCII font set in the font module and DBCS characters. In one  
embodiment, the font area includes only font data for the DBCS characters that are used  
in the data strings stored in the data structure, thereby minimizing data storage.

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